



28238 sequence listing v2.txt
SEQUENCE LISTING

<110> Mintz, Liat

<120> Compositions, Reagents and Kits for and Methods of Diagnosing, Monitoring and Treating Obesity and/or Diabetes

<130> 28238

<140> 10/659,783

<141> 2003-09-11

<160> 42

<170> PatentIn version 3.3

<210> 1

<211> 4517

<212> DNA

<213> Homo sapiens

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 <213> Mus musculus

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<212> DNA
<213> Mus musculus

<400> 6

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<211> 1028
<212> DNA
<213> Mus musculus

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<211> 306
<212> DNA
<213> Mus musculus

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<211> 665
<212> DNA
<213> Homo sapiens

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<212> DNA
<213> Homo sapiens

<400> 11
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tctggaaagga catgggggct tagagtccata aacagactgt ttcccccttc cagcagagaa 420
aggagtcgaa gaagccacca gccaagctgc agccccgagc tctagcaggc tggctccgccc 480
cggaagatgg aggtcaagca gaagggcag agatgaact ggaagtccgg gtcggcacct 540
ctgcagttt atgcttctgt ggcagcgagg agggtgaaaa 579

<210> 12
<211> 1448
<212> DNA
<213> Homo sapiens

<400> 12
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caggccagct ccctgtcggta tggctttat gaaaaaatat ctcctccccca ttctgggct 180
cttcatggcc tactactact attctgcaaa cgaggaattc agaccagaga tgctccaagg 240

28238 sequence listing v2.txt

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tttcttat						1448

<210> 13
<211> 708
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (626)..(626)
<223> n is a, g, c, or t

<400> 13	gcactgcctg	agactactcc	agcctccccc	gtccctgatg	tcacaattca	gaggctgctg	60
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28238 sequence listing v2.txt

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tattcaccat gtgcgaaaa gcatggaagt caacttcctc agttacgtgg tcctgactgt	540
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<210> 14
<211> 1394
<212> DNA
<213> Homo sapiens

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28238 sequence listing v2.txt

<210> 15
<211> 1394
<212> DNA
<213> Homo sapiens

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caggccagct ccctgtcggaa tggctttat gaaaaaatat ctccctccca ttctgggct 180
cttcatggcc tactactact attctgcaaa cgaggaattc agaccagaga tgctccaagg 240
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catgctcatt ctcaaccaca tcaccaacac ttctttgaat cttttcatg atgatattca 540
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acaatattaa ttataataaa ggtcacataa actttataaa ttcataactg gtagctataa 1320
ctttagctt ttcaggatgg tttctttaaa accataaact gtacaaatga aattttcaa 1380
tatttgtttc ttat 1394

<210> 16
<211> 1394
<212> DNA
<213> Homo sapiens

<400> 16
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cctgcttagg aggttgtaga aagctctgta ggttctctct gtgtgtccta caggagtctt 120

28238 sequence listing v2.txt

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<210> 17
<211> 1821
<212> DNA
<213> Homo sapiens

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	cttcttgt	tcaggtggca	gaccagctgg	tttcagtccc	aaatcagg	tc ttctgactcc	420
	tcccagaaac	caaccaactt	ctgagcagga	aatcctgccc	ctccccaaag	agtggaaac	480

28238 sequence listing v2.txt

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agatgctcca aggaaagaaa gtgattgtca cagggccag caaaggatc ggaagagaga	660
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ctggcaccat ggaagacatg accttcgcag agcaatttgt tgcccaagca ggaaagctca	840
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atgatgatat tcaccatgtg cgcaaaagca tggaaagtcaa cttcctcagt tacgtggtcc	960
tgactgttagc tgccttgccc atgctgaagc agagcaatgg aagcattgtt gtcgtctcct	1020
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caagtcatgg gtcacacccctg acaaatggaa ggagttccctc taacatttgc aaaatggaaa	1560
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ataggtaata ttaccagata gttatattaa atttatatct tatataataat aataatgtat	1680
gattaataca atattaatta taataaaggt cacataaaact ttataaattc ataactggta	1740
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<210> 18
<211> 1304
<212> DNA
<213> Homo sapiens

<400> 18
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caggccagct ccctgtcggta tggctttat gaaaaaatat ctcctccccca ttctggggct 180
cttcatggcc tactactact attctgcaaa cgaggaattc agaccagaga tgctccaagg 240
aaagaaaagtg attgtcacag gggccagcaa agggatcggta agagagatgg cttatcatct 300
ggcgaagatg ggagcccatg tgggtgtgac agcgaggatca aaagaaaactc tacagaaggt 360
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28238 sequence listing v2.txt

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<210> 19
<211> 1307
<212> DNA
<213> Mus musculus

<400> 19						
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gaaggaaatc	tctggataa	ttaacgccc	agcttctccc	aaggaggagt	gcccctgga	840
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28238 sequence listing v2.txt

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cctggtgagt	
ggtcttagaa	
cagtcctgcc	1080
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<210> 20
<211> 1181
<212> DNA
<213> Mus musculus

<400> 20	
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gagtggtctt	
agaacagtcc	
tgccctgatac	960
ttctgttaagc	
cctacccaca	
aaagtatctt	
tccagagata	
cacaaatttt	
gggttacacc	1020
tcatcatgag	
aaattcttgc	
aacacttgca	
cagtaaaaat	
gtaattgtaa	
taaatgtcac	1080
aaaccacttt	
ggggcctgca	
gttgtgaact	
tgattgtAAC	
tatggatata	
aacacatagt	1140
ggttgtatcg	
gctttacctc	
acactgaatg	
aaacaatgtat	
aactaatgtat	
acattaaata	1181
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aatatcaact	
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<210> 21
<211> 845
<212> DNA
<213> Mus musculus

28238 sequence listing v2.txt

<400> 21
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gaaaattac ctcctcccga tcctggct cttcctggcc tactactact attctacaaa 180
tgaagagttc agaccagaaa tgctccaggg aaagaaagtg attgtcactg gggccagcaa 240
agggatttga agagaaatgg catatcatct gtcaaaaaatg ggagcccatg tggtattgac 300
tgccaggtcg gaggaaggtc tccagaaggt agtgtctcgc tgccctgaac tcggagcagc 360
ctctgctcac tacattgctg gcactatgga agacatgaca tttgcggagc aatttattgt 420
caaggcggga aagctcatgg gcggactgga catgcttatt ctaaaccaca tcactcagac 480
ctcgctgtct ctcttccatg acgacatcca ctctgtgcga agagtcatgg aggtcaactt 540
cctcagctac gtggcatga gcacagccgc cttgcccattt ctgaagcaga gcaatggcag 600
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tgttactcct gactcccgcg gcccgatt aatatcacca gccacagaat ggactggAAC 720
cctgtatcga tctggtggga ttggatataa cgaacataga attactcctg agactaccag 780
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ttgca 845

<210> 22

<211> 244

<212> PRT

<213> Homo sapiens

<400> 22

Met	Leu	Leu	Leu	Gly	Ala	Val	Leu	Leu	Leu	Leu	Ala	Leu	Pro	Gly	His
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Asp	Gln	Glu	Thr	Thr	Thr	Gln	Gly	Pro	Gly	Val	Leu	Leu	Pro	Leu	Pro
							25					30			

Lys	Gly	Ala	Cys	Thr	Gly	Trp	Met	Ala	Gly	Ile	Pro	Gly	His	Pro	Gly
35							40				45				

His	Asn	Gly	Ala	Pro	Gly	Arg	Asp	Gly	Arg	Asp	Gly	Thr	Pro	Gly	Glu
50						55				60					

Lys	Gly	Glu	Lys	Gly	Asp	Pro	Gly	Leu	Ile	Gly	Pro	Lys	Gly	Asp	Ile
65					70				75			80			

Gly	Glu	Thr	Gly	Val	Pro	Gly	Ala	Glu	Gly	Pro	Arg	Gly	Phe	Pro	Gly
								85			90		95		

Ile	Gln	Gly	Arg	Lys	Gly	Glu	Pro	Gly	Glu	Gly	Ala	Tyr	Val	Tyr	Arg
				100					105			110			

28238 sequence listing v2.txt

Ser Ala Phe Ser Val Gly Leu Glu Thr Tyr Val Thr Ile Pro Asn Met
115 120 125

Pro Ile Arg Phe Thr Lys Ile Phe Tyr Asn Gln Gln Asn His Tyr Asp
130 135 140

Gly Ser Thr Gly Lys Phe His Cys Asn Ile Pro Gly Leu Tyr Tyr Phe
145 150 155 160

Ala Tyr His Ile Thr Val Tyr Met Lys Asp Val Lys Val Ser Leu Phe
165 170 175

Lys Lys Asp Lys Ala Met Leu Phe Thr Tyr Asp Gln Tyr Gln Glu Asn
180 185 190

Asn Val Asp Gln Ala Ser Gly Ser Val Leu Leu His Leu Glu Val Gly
195 200 205

Asp Gln Val Trp Leu Gln Val Tyr Gly Glu Gly Glu Arg Asn Gly Leu
210 215 220

Tyr Ala Asp Asn Asp Asn Asp Ser Thr Phe Thr Gly Phe Leu Leu Tyr
225 230 235 240

His Asp Thr Asn

<210> 23

<211> 160

<212> PRT

<213> Homo sapiens

<400> 23

Met Pro Gly Ala Glu Gly Pro Arg Gly Phe Pro Gly Ile Gln Gly Arg
1 5 10 15

Lys Gly Glu Pro Gly Glu Gly Ala Tyr Val Tyr Arg Ser Ala Phe Ser
20 25 30

Val Gly Leu Glu Thr Tyr Val Thr Ile Pro Asn Met Pro Ile Arg Phe
35 40 45

Thr Lys Ile Phe Tyr Asn Gln Gln Asn His Tyr Asp Gly Ser Thr Gly
50 55 60

Lys Phe His Cys Asn Ile Pro Gly Leu Tyr Tyr Phe Ala Tyr His Ile
65 70 75 80

Thr Val Tyr Met Lys Asp Val Lys Val Ser Leu Phe Lys Lys Asp Lys
85 90 95

28238 sequence listing v2.txt

Ala Met Leu Phe Thr Tyr Asp Gln Tyr Gln Glu Asn Asn Val Asp Gln
100 105 110

Ala Ser Gly Ser Val Leu Leu His Leu Glu Val Gly Asp Gln Val Trp
115 120 125

Leu Gln Val Tyr Gly Glu Gly Glu Arg Asn Gly Leu Tyr Ala Asp Asn
130 135 140 145

Asp Asn Asp Ser Thr Phe Thr Gly Phe Leu Leu Tyr His Asp Thr Asn
150 155 160

<210> 24

<211> 153

<212> PRT

<213> Homo sapiens

<400> 24

Met Leu Leu Leu Gly Ala Val Leu Leu Leu Ala Leu Pro Gly His
1 5 10 15

Asp Gln Glu Thr Thr Gln Gly Pro Gly Val Leu Leu Pro Leu Pro
20 25 30

Lys Gly Ala Cys Thr Gly Trp Met Ala Gly Ile Pro Gly His Pro Gly
35 40 45

His Asn Gly Ala Pro Gly Arg Asp Gly Arg Asp Gly Thr Pro Gly Glu
50 55 60

Lys Gly Glu Lys Gly Asp Pro Gly Leu Ile Gly Pro Lys Gly Asp Ile
65 70 75 80

Gly Glu Thr Gly Val Pro Gly Ala Glu Gly Pro Arg Gly Phe Pro Gly
85 90 95

Ile Gln Gly Arg Lys Gly Glu Pro Gly Glu Gly Ala Leu Leu Ser Pro
100 105 110

Thr Cys Pro Phe Ala Leu Pro Arg Ser Ser Thr Ile Ser Lys Thr Thr
115 120 125

Met Met Ala Pro Leu Val Asn Ser Thr Ala Thr Phe Leu Gly Cys Thr
130 135 140

Thr Leu Pro Thr Thr Ser Gln Ser Ile
145 150

<210> 25

<211> 166

<212> PRT

<213> Homo sapiens

28238 sequence listing v2.txt

<400> 25

Met Leu Leu Leu Gln Ala Val Leu Leu Leu Ala Leu Pro Gln His
1 5 10 15

Asp Gln Glu Thr Thr Thr Gln Gly Pro Gly Val Leu Leu Pro Leu Pro
20 25 30

Lys Gly Ala Cys Thr Gly Trp Met Ala Gly Ile Pro Gly His Pro Gly
35 40 45

His Asn Gly Ala Pro Gly Arg Asp Gly Arg Asp Gly Thr Pro Gly Glu
50 55 60

Lys Gly Glu Lys Gly Asp Pro Gly Leu Ile Gly Pro Lys Gly Asp Ile
65 70 75 80

Gly Glu Thr Gly Val Pro Gly Ala Glu Gly Pro Arg Gly Phe Pro Gly
85 90 95

Ile Gln Gly Arg Lys Gly Glu Pro Gly Glu Gly Ala Tyr Val Tyr Arg
100 105 110

Ser Ala Phe Ser Val Gly Leu Glu Thr Tyr Val Thr Ile Pro Asn Met
115 120 125

Pro Ile Arg Phe Thr Lys Ile Phe Tyr Asn Gln Gln Asn His Tyr Asp
130 135 140

Gly Ser Thr Gly Lys Phe His Cys Asn Ile Pro Gly Leu Tyr Leu His
145 150 155 160

Arg Leu Ser Ser Leu Pro
165

<210> 26

<211> 247

<212> PRT

<213> Mus musculus

<400> 26

Met Leu Leu Leu Gln Ala Leu Leu Phe Leu Leu Ile Leu Pro Ser His
1 5 10 15

Ala Glu Asp Asp Val Thr Thr Glu Glu Leu Ala Pro Ala Leu Val
20 25 30

Pro Pro Pro Lys Gly Thr Cys Ala Gly Trp Met Ala Gly Ile Pro Gly
35 40 45

His Pro Gly His Asn Gly Thr Pro Gly Arg Asp Gly Arg Asp Gly Thr
Page 19

50

28238 sequence listing v2.txt
55 60

Pro Gly Glu Lys Gly Glu Lys Gly Asp Ala Gly Leu Leu Gly Pro Lys
65 70 75 80

Gly Glu Thr Gly Asp Val Gly Met Thr Gly Ala Glu Gly Pro Arg Gly
85 90 95

Phe Pro Gly Thr Pro Gly Arg Lys Gly Glu Pro Gly Glu Ala Ala Tyr
100 105 110

Met Tyr Arg Ser Ala Phe Ser Val Gly Leu Glu Thr Arg Val Thr Val
115 120 125

Pro Asn Val Pro Ile Arg Phe Thr Lys Ile Phe Tyr Asn Gln Gln Asn
130 135 140

His Tyr Asp Gly Ser Thr Gly Lys Phe Tyr Cys Asn Ile Pro Gly Leu
145 150 155 160

Tyr Tyr Phe Ser Tyr His Ile Thr Val Tyr Met Lys Asp Val Lys Val
165 170 175

Ser Leu Phe Lys Lys Asp Lys Ala Val Leu Phe Thr Tyr Asp Gln Tyr
180 185 190

Gln Glu Lys Asn Val Asp Gln Ala Ser Gly Ser Val Leu Leu His Leu
195 200 205

Glu Val Gly Asp Gln Val Trp Leu Gln Val Tyr Gly Asp Gly Asp His
210 215 220

Asn Gly Leu Tyr Ala Asp Asn Val Asn Asp Ser Thr Phe Thr Gly Phe
225 230 235 240

Leu Leu Tyr His Asp Thr Asn
245

<210> 27

<211> 160

<212> PRT

<213> Mus musculus

<400> 27

Met Thr Gly Ala Glu Gly Pro Arg Gly Phe Pro Gly Thr Pro Gly Arg
1 5 10 15

Lys Gly Glu Pro Gly Glu Ala Ala Tyr Val Tyr Arg Ser Ala Phe Ser
20 25 30

Val Gly Leu Glu Thr Arg Val Thr Val Pro Asn Val Pro Ile Arg Phe
Page 20

35

28238 sequence listing v2.txt
40 45

Thr Lys Ile Phe Tyr Asn Gln Gln Asn His Tyr Asp Gly Ser Thr Gly
50 55 60

Lys Phe Tyr Cys Asn Ile Pro Gly Leu Tyr Tyr Phe Ser Tyr His Ile
65 70 75 80

Thr Val Tyr Met Lys Asp Val Lys Val Ser Leu Phe Lys Lys Asp Lys
85 90 95

Ala Val Leu Phe Thr Tyr Asp Gln Tyr Gln Glu Lys Asn Val Asp Gln
100 105 110

Ala Ser Gly Ser Val Leu Leu His Leu Glu Val Gly Asp Gln Val Trp
115 120 125

Leu Gln Val Tyr Gly Asp Gly Asp His Asn Gly Leu Tyr Ala Asp Asn
130 135 140

Val Asn Asp Ser Thr Phe Thr Gly Phe Leu Leu Tyr His Asp Thr Asn
145 150 155 160

<210> 28

<211> 156

<212> PRT

<213> Mus musculus

<400> 28

Met Leu Leu Leu Gln Ala Leu Leu Phe Leu Leu Ile Leu Pro Ser His
1 5 10 15

Ala Glu Asp Asp Val Thr Thr Glu Glu Leu Ala Pro Ala Leu Val
20 25 30

Pro Pro Pro Lys Gly Thr Cys Ala Gly Trp Met Ala Gly Ile Pro Gly
35 40 45

His Pro Gly His Asn Gly Thr Pro Gly Arg Asp Gly Arg Asp Gly Thr
50 55 60

Pro Gly Glu Lys Gly Glu Lys Gly Asp Ala Gly Leu Leu Gly Pro Lys
65 70 75 80

Gly Glu Thr Gly Asp Val Gly Met Thr Gly Ala Glu Gly Pro Arg Gly
85 90 95

Phe Pro Gly Thr Pro Gly Arg Lys Gly Glu Pro Gly Glu Ala Ala Ser
100 105 110

Leu Phe Pro Met Tyr Pro Phe Ala Leu Leu Arg Ser Ser Thr Thr Asn
Page 21

28238 sequence listing v2.txt
115 120 125

Arg Ile Ile Met Thr Ala Ala Leu Ala Ser Ser Thr Ala Thr Phe Arg
130 135 140

Asp Ser Thr Thr Ser Leu Thr Thr Ser Arg Cys Thr
145 150 155

<210> 29
<211> 169
<212> PRT
<213> Mus musculus

<400> 29

Met Leu Leu Leu Gln Ala Leu Leu Phe Leu Leu Ile Leu Pro Ser His
1 5 10 15

Ala Glu Asp Asp Val Thr Thr Glu Glu Leu Ala Pro Ala Leu Val
20 25 30

Pro Pro Pro Lys Gly Thr Cys Ala Gly Trp Met Ala Gly Ile Pro Gly
35 40 45

His Pro Gly His Asn Gly Thr Pro Gly Arg Asp Gly Arg Asp Gly Thr
50 55 60

Pro Gly Glu Lys Gly Glu Lys Gly Asp Ala Gly Leu Leu Gly Pro Lys
65 70 75 80

Gly Glu Thr Gly Asp Val Gly Met Thr Gly Ala Glu Gly Pro Arg Gly
85 90 95

Phe Pro Gly Thr Pro Gly Arg Lys Gly Glu Pro Gly Glu Ala Ala Tyr
100 105 110

Val Tyr Arg Ser Ala Phe Ser Val Gly Leu Glu Thr Arg Val Thr Val
115 120 125

Pro Asn Val Pro Ile Arg Phe Thr Lys Ile Phe Tyr Asn Gln Gln Asn
130 135 140

His Tyr Asp Gly Ser Thr Gly Lys Phe Tyr Cys Asn Ile Pro Gly Leu
145 150 155 160

Tyr Ile Tyr Trp Leu Ser Ser Leu Pro
165

<210> 30
<211> 76
<212> PRT
<213> Mus musculus

28238 sequence listing v2.txt

<400> 30

Met Leu Leu Leu Gln Ala Leu Leu Phe Leu Leu Ile Leu Pro Ser His
 1 5 10 15

Ala Glu Asp Asp Val Thr Thr Thr Glu Glu Leu Ala Pro Ala Leu Val
 20 25 30

Pro Pro Pro Lys Gly Thr Cys Ala Gly Trp Met Ala Gly Ile Pro Gly
 35 40 45

His Pro Gly His Ile Lys Ile Lys Phe Glu Gly His Pro Pro Gly Arg
 50 55 60

Leu Asn Cys Ala Lys Ile Trp His Phe Leu Gln Asp
 65 70 75

<210> 31

<211> 117

<212> PRT

<213> Homo sapiens

<400> 31

Met Pro Ser Pro Gly Thr Val Cys Ser Leu Leu Leu Leu Gly Met Leu
 1 5 10 15

Trp Leu Asp Leu Ala Met Ala Gly Ser Ser Phe Leu Ser Pro Glu His
 20 25 30

Gln Arg Val Gln Gln Arg Lys Glu Ser Lys Lys Pro Pro Ala Lys Leu
 35 40 45

Gln Pro Arg Ala Leu Ala Gly Trp Leu Arg Pro Glu Asp Gly Gly Gln
 50 55 60

Ala Glu Gly Ala Glu Asp Glu Leu Glu Val Arg Phe Asn Ala Pro Phe
 65 70 75 80

Asp Val Gly Ile Lys Leu Ser Gly Val Gln Tyr Gln Gln His Ser Gln
 85 90 95

Ala Leu Gly Lys Phe Leu Gln Asp Ile Leu Trp Glu Glu Ala Lys Glu
 100 105 110

Ala Pro Ala Asp Lys
 115

<210> 32

<211> 117

<212> PRT

<213> Homo sapiens

<400> 32

28238 sequence listing v2.txt

Met Pro Ser Pro Gly Thr Val Cys Ser Leu Leu Leu Leu Gly Met Leu
1 5 10 15

Trp Leu Asp Leu Ala Met Ala Gly Ser Ser Phe Leu Ser Pro Glu His
20 25 30

Gln Arg Val Gln Val Arg Pro Pro His Lys Ala Pro His Val Val Pro
35 40 45

Ala Leu Pro Leu Ser Asn Gln Leu Cys Asp Leu Glu Gln Gln Arg His
50 55 60

Leu Trp Ala Ser Val Phe Ser Gln Ser Thr Lys Asp Ser Gly Ser Asp
65 70 75 80

Leu Thr Val Ser Gly Arg Thr Trp Gly Leu Arg Val Leu Asn Arg Leu
85 90 95

Phe Pro Pro Ser Ser Arg Glu Arg Ser Arg Arg Ser His Gln Pro Ser
100 105 110

Cys Ser Pro Glu Leu
115

<210> 33

<211> 292

<212> PRT

<213> Homo sapiens

<400> 33

Met Ala Phe Met Lys Lys Tyr Leu Leu Pro Ile Leu Gly Leu Phe Met
1 5 10 15

Ala Tyr Tyr Tyr Tyr Ser Ala Asn Glu Glu Phe Arg Pro Glu Met Leu
20 25 30

Gln Gly Lys Lys Val Ile Val Thr Gly Ala Ser Lys Gly Ile Gly Arg
35 40 45

Glu Met Ala Tyr His Leu Ala Lys Met Gly Ala His Val Val Val Thr
50 55 60

Ala Arg Ser Lys Glu Thr Leu Gln Lys Val Val Ser His Cys Leu Glu
65 70 75 80

Leu Gly Ala Ala Ser Ala His Tyr Ile Ala Gly Thr Met Glu Asp Met
85 90 95

Thr Phe Ala Glu Gln Phe Val Ala Gln Ala Gly Lys Leu Met Gly Gly
100 105 110

28238 sequence listing v2.txt

Leu Asp Met Leu Ile Leu Asn His Ile Thr Asn Thr Ser Leu Asn Leu
115 120 125

Phe His Asp Asp Ile His His Val Arg Lys Ser Met Glu Val Asn Phe
130 135 140

Leu Ser Tyr Val Val Leu Thr Val Ala Ala Leu Pro Met Leu Lys Gln
145 150 155 160

Ser Asn Gly Ser Ile Val Val Val Ser Ser Leu Ala Gly Lys Val Ala
165 170 175

Tyr Pro Met Val Ala Ala Tyr Ser Ala Ser Lys Phe Ala Leu Asp Gly
180 185 190

Phe Phe Ser Ser Ile Arg Lys Glu Tyr Ser Val Ser Arg Val Asn Val
195 200 205

Ser Ile Thr Leu Cys Val Leu Gly Leu Ile Asp Thr Glu Thr Ala Met
210 215 220

Lys Ala Val Ser Gly Ile Val His Met Gln Ala Ala Pro Lys Glu Glu
225 230 235 240

Cys Ala Leu Glu Ile Ile Lys Gly Gly Ala Leu Arg Gln Glu Glu Val
245 250 255

Tyr Tyr Asp Ser Ser Leu Trp Thr Thr Leu Leu Ile Arg Asn Pro Cys
260 265 270

Arg Lys Ile Leu Glu Phe Leu Tyr Ser Thr Ser Tyr Asn Met Asp Arg
275 280 285

Phe Ile Asn Lys
290

<210> 34
<211> 163
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (163)..(163)
<223> Xaa can be any naturally occurring amino acid
<400> 34

Met Ala Phe Met Lys Lys Tyr Leu Leu Pro Ile Leu Gly Leu Phe Met
1 5 10 15

Ala Tyr Tyr Tyr Tyr Ser Ala Asn Glu Glu Phe Arg Pro Glu Met Leu
Page 25

20

28238 sequence listing v2.txt
25 30

Gln Gly Lys Lys Val Ile Val Thr Gly Ala Ser Lys Gly Ile Gly Arg
35 40 45

Glu Met Ala Tyr His Leu Ala Lys Met Gly Ala His Val Val Val Thr
50 55 60

Ala Ser Ser Ala His Tyr Ile Ala Gly Thr Met Glu Asp Met Thr Phe
65 70 75 80

Ala Glu Gln Phe Val Ala Gln Ala Gly Lys Leu Met Gly Gly Leu Asp
85 90 95

Met Leu Ile Leu Asn His Ile Thr Asn Thr Ser Leu Asn Leu Phe His
100 105 110

Asp Asp Ile His His Val Arg Lys Ser Met Glu Val Asn Phe Leu Ser
115 120 125

Tyr Val Val Leu Thr Val Ala Ala Leu Pro Met Leu Lys Gln Ser Asn
130 135 140

Gly Ser Met Cys Ala Leu Leu Leu Glu Cys Tyr His Val Val His Leu
145 150 155 160

Ser Ser Xaa

<210> 35
<211> 295
<212> PRT
<213> Homo sapiens

<400> 35

Met Ala Phe Met Lys Lys Tyr Leu Leu Pro Ile Leu Gly Leu Phe Met
1 5 10 15

Ala Tyr Tyr Tyr Tyr Ser Ala Asn Glu Glu Phe Arg Pro Glu Met Leu
20 25 30

Gln Gly Lys Lys Val Ile Val Thr Gly Ala Ser Lys Gly Ile Gly Arg
35 40 45

Glu Met Ala Tyr His Leu Ala Lys Met Gly Ala His Val Val Val Thr
50 55 60

Ala Arg Ser Lys Glu Thr Leu Gln Lys Val Val Ser His Cys Leu Glu
65 70 75 80

Leu Gly Ala Ala Ser Ala His Tyr Ile Ala Gly Thr Met Glu Asp Met
Page 26

Thr Phe Ala Glu Gln Phe Val Ala Gln Ala Gly Lys Leu Met Gly Gly
100 105 110

Leu Asp Met Leu Ile Leu Asn His Ile Thr Asn Thr Ser Leu Asn Leu
115 120 125

Phe His Asp Asp Ile His His Val Arg Lys Ser Met Glu Val Asn Phe
130 135 140

Leu Ser Tyr Val Val Leu Thr Val Ala Ala Leu Pro Met Leu Lys Gln
145 150 155 160

Ser Asn Gly Ser Ile Val Val Val Ser Ser Leu Ala Gly Lys Val Ala
165 170 175

Tyr Pro Met Val Ala Ala Tyr Ser Ala Ser Lys Phe Ala Leu Asp Gly
180 185 190

Phe Phe Ser Ser Ile Arg Lys Glu Tyr Ser Val Ser Arg Val Asn Val
195 200 205

Ser Ile Thr Leu Cys Val Leu Gly Leu Ile Asp Thr Glu Thr Ala Met
210 215 220

Lys Ala Val Ser Gly Ile Val His Met Gln Ala Ala Pro Lys Glu Glu
225 230 235 240

Cys Ala Leu Glu Ile Ile Lys Gly Gly Ala Leu Arg Gln Glu Glu Val
245 250 255

Tyr Tyr Asp Ser Ser Leu Trp Thr Thr Leu Leu Ile Arg Asn Pro Cys
260 265 270

Arg Lys Ile Leu Glu Phe Leu Tyr Ser Thr Ser Tyr Asn Met Glu Gly
275 280 285

Leu Phe Cys Leu Met Phe Ile
290 295

<210> 36
<211> 274
<212> PRT
<213> Homo sapiens

<400> 36

Met Ala Phe Met Lys Lys Tyr Leu Leu Pro Ile Leu Gly Leu Phe Met
1 5 10 15

Ala Tyr Tyr Tyr Tyr Ser Ala Asn Glu Glu Phe Arg Pro Glu Met Leu
Page 27

Gln Gly Lys Lys Val Ile Val Thr Gly Ala Ser Lys Gly Ile Gly Arg
35 40 45

Glu Met Ala Tyr His Leu Ala Lys Met Gly Ala His Val Val Val Thr
50 55 60

Ala Arg Ser Lys Glu Thr Leu Gln Lys Val Val Ser His Cys Leu Glu
65 70 75 80

Leu Gly Ala Ala Ser Ala His Tyr Ile Ala Gly Thr Met Glu Asp Met
85 90 95

Thr Phe Ala Glu Gln Phe Val Ala Gln Ala Gly Lys Leu Met Gly Gly
100 105 110

Leu Asp Met Leu Ile Leu Asn His Ile Thr Asn Thr Ser Leu Asn Leu
115 120 125

Phe His Asp Asp Ile His His Val Arg Pro Met Leu Lys Gln Ser Asn
130 135 140

Gly Ser Ile Val Val Val Ser Ser Leu Ala Gly Lys Val Ala Tyr Pro
145 150 155 160

Met Val Ala Ala Tyr Ser Ala Ser Lys Phe Ala Leu Asp Gly Phe Phe
165 170 175

Ser Ser Ile Arg Lys Glu Tyr Ser Val Ser Arg Val Asn Val Ser Ile
180 185 190

Thr Leu Cys Val Leu Gly Leu Ile Asp Thr Glu Thr Ala Met Lys Ala
195 200 205

Val Ser Gly Ile Val His Met Gln Ala Ala Pro Lys Glu Glu Cys Ala
210 215 220

Leu Glu Ile Ile Lys Gly Gly Ala Leu Arg Gln Glu Glu Val Tyr Tyr
225 230 235 240

Asp Ser Ser Leu Trp Thr Thr Leu Leu Ile Arg Asn Pro Cys Arg Lys
245 250 255

Ile Leu Glu Phe Leu Tyr Ser Thr Ser Tyr Asn Met Asp Arg Phe Ile
260 265 270

Asn Lys

28238 sequence listing v2.txt

<210> 37
<211> 274
<212> PRT
<213> Homo sapiens

<400> 37

Met Ala Phe Met Lys Lys Tyr Leu Leu Pro Ile Leu Gly Leu Phe Met
1 5 10 15

Ala Tyr Tyr Tyr Ser Ala Asn Glu Glu Phe Arg Pro Glu Met Leu
20 25 30

Gln Gly Lys Lys Val Ile Val Thr Gly Ala Ser Lys Gly Ile Gly Arg
35 40 45

Glu Met Ala Tyr His Leu Ala Lys Met Gly Ala His Val Val Val Thr
50 55 60

Ala Ser Ser Ala His Tyr Ile Ala Gly Thr Met Glu Asp Met Thr Phe
65 70 75 80

Ala Glu Gln Phe Val Ala Gln Ala Gly Lys Leu Met Gly Gly Leu Asp
85 90 95

Met Leu Ile Leu Asn His Ile Thr Asn Thr Ser Leu Asn Leu Phe His
100 105 110

Asp Asp Ile His His Val Arg Lys Ser Met Glu Val Asn Phe Leu Ser
115 120 125

Tyr Val Val Leu Thr Val Ala Ala Leu Pro Met Leu Lys Gln Ser Asn
130 135 140

Gly Ser Ile Val Val Val Ser Ser Leu Ala Gly Lys Val Ala Tyr Pro
145 150 155 160

Met Val Ala Ala Tyr Ser Ala Ser Lys Phe Ala Leu Asp Gly Phe Phe
165 170 175

Ser Ser Ile Arg Lys Glu Tyr Ser Val Ser Arg Val Asn Val Ser Ile
180 185 190

Thr Leu Cys Val Leu Gly Leu Ile Asp Thr Glu Thr Ala Met Lys Ala
195 200 205

Val Ser Gly Ile Val His Met Gln Ala Ala Pro Lys Glu Glu Cys Ala
210 215 220

Leu Glu Ile Ile Lys Gly Gly Ala Leu Arg Gln Glu Glu Val Tyr Tyr
225 230 235 240

28238 sequence listing v2.txt
Asp Ser Ser Leu Trp Thr Thr Leu Leu Ile Arg Asn Pro Cys Arg Lys
245 250 255

Ile Leu Glu Phe Leu Tyr Ser Thr Ser Tyr Asn Met Asp Arg Phe Ile
260 265 270

Asn Lys

<210> 38
<211> 262
<212> PRT
<213> Homo sapiens

<400> 38

Met Leu Gln Gly Lys Lys Val Ile Val Thr Gly Ala Ser Lys Gly Ile
1 5 10 15

Gly Arg Glu Met Ala Tyr His Leu Ala Lys Met Gly Ala His Val Val
20 25 30

Val Thr Ala Arg Ser Lys Glu Thr Leu Gln Lys Val Val Ser His Cys
35 40 45

Leu Glu Leu Gly Ala Ala Ser Ala His Tyr Ile Ala Gly Thr Met Glu
50 55 60

Asp Met Thr Phe Ala Glu Gln Phe Val Ala Gln Ala Gly Lys Leu Met
65 70 75 80

Gly Gly Leu Asp Met Leu Ile Leu Asn His Ile Thr Asn Thr Ser Leu
85 90 95

Asn Leu Phe His Asp Asp Ile His His Val Arg Lys Ser Met Glu Val
100 105 110

Asn Phe Leu Ser Tyr Val Val Leu Thr Val Ala Ala Leu Pro Met Leu
115 120 125

Lys Gln Ser Asn Gly Ser Ile Val Val Val Ser Ser Leu Ala Gly Lys
130 135 140

Val Ala Tyr Pro Met Val Ala Ala Tyr Ser Ala Ser Lys Phe Ala Leu
145 150 155 160

Asp Gly Phe Phe Ser Ser Ile Arg Lys Glu Tyr Ser Val Ser Arg Val
165 170 175

Asn Val Ser Ile Thr Leu Cys Val Leu Gly Leu Ile Asp Thr Glu Thr
180 185 190

28238 sequence listing v2.txt

Ala Met Lys Ala Val Ser Gly Ile Val His Met Gln Ala Ala Pro Lys
195 200 205

Glu Glu Cys Ala Leu Glu Ile Ile Lys Gly Gly Ala Leu Arg Gln Glu
210 215 220

Glu Val Tyr Tyr Asp Ser Ser Leu Trp Thr Thr Leu Leu Ile Arg Asn
225 230 235 240

Pro Cys Arg Lys Ile Leu Glu Phe Leu Tyr Ser Thr Ser Tyr Asn Met
245 250 255

Asp Arg Phe Ile Asn Lys
260

<210> 39

<211> 244

<212> PRT

<213> Homo sapiens

<400> 39

Met Ala Phe Met Lys Lys Tyr Leu Leu Pro Ile Leu Gly Leu Phe Met
1 5 10 15

Ala Tyr Tyr Tyr Tyr Ser Ala Asn Glu Glu Phe Arg Pro Glu Met Leu
20 25 30

Gln Gly Lys Lys Val Ile Val Thr Gly Ala Ser Lys Gly Ile Gly Arg
35 40 45

Glu Met Ala Tyr His Leu Ala Lys Met Gly Ala His Val Val Val Thr
50 55 60

Ala Arg Ser Lys Glu Thr Leu Gln Lys Val Val Ser His Cys Leu Glu
65 70 75 80

Leu Gly Ala Ala Ser Ala His Tyr Ile Ala Gly Thr Met Glu Asp Met
85 90 95

Thr Phe Ala Glu Gln Phe Val Ala Gln Ala Gly Lys Leu Met Gly Gly
100 105 110

Leu Asp Met Leu Ile Leu Asn His Ile Thr Asn Thr Ser Leu Asn Leu
115 120 125

Phe His Asp Asp Ile His His Val Arg Lys Ser Met Glu Val Asn Phe
130 135 140

Leu Ser Tyr Val Val Leu Thr Val Ala Ala Leu Pro Met Leu Lys Gln
145 150 155 160

28238 sequence listing v2.txt
Ser Asn Gly Ser Ile Val Val Val Ser Ser Leu Ala Glu Thr Ala Met
165 170 175

Lys Ala Val Ser Gly Ile Val His Met Gln Ala Ala Pro Lys Glu Glu
180 185 190

Cys Ala Leu Glu Ile Ile Lys Gly Gly Ala Leu Arg Gln Glu Glu Val
195 200 205

Tyr Tyr Asp Ser Ser Leu Trp Thr Thr Leu Leu Ile Arg Asn Pro Cys
210 215 220

Arg Lys Ile Leu Glu Phe Leu Tyr Ser Thr Ser Tyr Asn Met Asp Arg
225 230 235 240

Phe Ile Asn Lys

<210> 40
<211> 292
<212> PRT
<213> Mus musculus

<400> 40

Met Ala Val Met Lys Asn Tyr Leu Leu Pro Ile Leu Val Leu Phe Leu
1 5 10 15

Ala Tyr Tyr Tyr Tyr Ser Thr Asn Glu Glu Phe Arg Pro Glu Met Leu
20 25 30

Gln Gly Lys Lys Val Ile Val Thr Gly Ala Ser Lys Gly Ile Gly Arg
35 40 45

Glu Met Ala Tyr His Leu Ser Lys Met Gly Ala His Val Val Leu Thr
50 55 60

Ala Arg Ser Glu Glu Gly Leu Gln Lys Val Val Ser Arg Cys Leu Glu
65 70 75 80

Leu Gly Ala Ala Ser Ala His Tyr Ile Ala Gly Thr Met Glu Asp Met
85 90 95

Thr Phe Ala Glu Gln Phe Ile Val Lys Ala Gly Lys Leu Met Gly Gly
100 105 110

Leu Asp Met Leu Ile Leu Asn His Ile Thr Gln Thr Ser Leu Ser Leu
115 120 125

Phe His Asp Asp Ile His Ser Val Arg Arg Val Met Glu Val Asn Phe
130 135 140

28238 sequence listing v2.txt

Leu Ser Tyr Val Val Met Ser Thr Ala Ala Leu Pro Met Leu Lys Gln
145 150 155 160

Ser Asn Gly Ser Ile Ala Val Ile Ser Ser Leu Ala Gly Lys Met Thr
165 170 175

Gln Pro Met Ile Ala Pro Tyr Ser Ala Ser Lys Phe Ala Leu Asp Gly
180 185 190

Phe Phe Ser Thr Ile Arg Thr Glu Leu Tyr Ile Thr Lys Val Asn Val
195 200 205

Ser Ile Thr Leu Cys Val Leu Gly Leu Ile Asp Thr Glu Thr Ala Met
210 215 220

Lys Glu Ile Ser Gly Ile Ile Asn Ala Gln Ala Ser Pro Lys Glu Glu
225 230 235 240

Cys Ala Leu Glu Ile Ile Lys Gly Thr Ala Leu Arg Lys Ser Glu Val
245 250 255

Tyr Tyr Asp Lys Ser Pro Leu Thr Pro Ile Leu Leu Gly Asn Pro Gly
260 265 270

Arg Lys Ile Met Glu Phe Phe Ser Leu Arg Tyr Tyr Asn Lys Asp Met
275 280 285

Phe Val Ser Asn
290

<210> 41
<211> 250
<212> PRT
<213> Mus musculus

<400> 41

Met Ala Val Met Lys Asn Tyr Leu Leu Pro Ile Leu Val Leu Phe Leu
1 5 10 15

Ala Tyr Tyr Tyr Tyr Ser Thr Asn Glu Glu Phe Arg Leu Gln Lys Val
20 25 30

Val Ser Arg Cys Leu Glu Leu Gly Ala Ala Ser Ala His Tyr Ile Ala
35 40 45

Gly Thr Met Glu Asp Met Thr Phe Ala Glu Gln Phe Ile Val Lys Ala
50 55 60

Gly Lys Leu Met Gly Gly Leu Asp Met Leu Ile Leu Asn His Ile Thr
65 70 75 80

28238 sequence listing v2.txt

Gln Thr Ser Leu Ser Leu Phe His Asp Asp Ile His Ser Val Arg Arg
85 90 95

Val Met Glu Val Asn Phe Leu Ser Tyr Val Val Met Ser Thr Ala Ala
100 105 110

Leu Pro Met Leu Lys Gln Ser Asn Gly Ser Ile Ala Val Ile Ser Ser
115 120 125

Leu Ala Gly Lys Met Thr Gln Pro Met Ile Ala Pro Tyr Ser Ala Ser
130 135 140

Lys Phe Ala Leu Asp Gly Phe Phe Ser Thr Ile Arg Thr Glu Leu Tyr
145 150 155 160

Ile Thr Lys Val Asn Val Ser Ile Thr Leu Cys Val Leu Gly Leu Ile
165 170 175

Asp Thr Glu Thr Ala Met Lys Glu Ile Ser Gly Ile Ile Asn Ala Gln
180 185 190

Ala Ser Pro Lys Glu Glu Cys Ala Leu Glu Ile Ile Lys Gly Thr Ala
195 200 205

Leu Arg Lys Ser Glu Val Tyr Tyr Asp Lys Ser Pro Leu Thr Pro Ile
210 215 220

Leu Leu Gly Asn Pro Gly Arg Lys Ile Met Glu Phe Phe Ser Leu Arg
225 230 235 240

Tyr Tyr Asn Lys Asp Met Phe Val Ser Asn
245 250

<210> 42
<211> 192
<212> PRT
<213> Mus musculus

<400> 42

Met Ala Val Met Lys Asn Tyr Leu Leu Pro Ile Leu Val Leu Phe Leu
1 5 10 15

Ala Tyr Tyr Tyr Tyr Ser Thr Asn Glu Glu Phe Arg Pro Glu Met Leu
20 25 30

Gln Gly Lys Lys Val Ile Val Thr Gly Ala Ser Lys Gly Ile Gly Arg
35 40 45

Glu Met Ala Tyr His Leu Ser Lys Met Gly Ala His Val Val Leu Thr
50 55 60

28238 sequence listing v2.txt

Ala Arg Ser Glu Glu Gly Leu Gln Lys Val Val Ser Arg Cys Leu Glu
65 70 75 80

Leu Gly Ala Ala Ser Ala His Tyr Ile Ala Gly Thr Met Glu Asp Met
85 90 95

Thr Phe Ala Glu Gln Phe Ile Val Lys Ala Gly Lys Leu Met Gly Gly
100 105 110

Leu Asp Met Leu Ile Leu Asn His Ile Thr Gln Thr Ser Leu Ser Leu
115 120 125

Phe His Asp Asp Ile His Ser Val Arg Arg Val Met Glu Val Asn Phe
130 135 140

Leu Ser Tyr Val Val Met Ser Thr Ala Ala Leu Pro Met Leu Lys Gln
145 150 155 160

Ser Asn Gly Ser Ile Ala Val Ile Ser Ser Leu Ala Gly Gly Arg Thr
165 170 175

Val Pro Gln Gln Arg Ser Arg Ser Val Thr Pro Asp Ser Arg Gly Pro
180 185 190